



LETTER TO THE EDITOR

Why Meridians?

To the Editor

The recent review article by Longhurst [1] is to be commended for its comprehensive coverage of the range of hypotheses that have been suggested to explain the nature of the meridians. Yet, despite providing compelling evidence, much of which is supported by his own outstanding work, for the neural basis of meridians and acupoints, Dr. Longhurst has omitted to discuss a number of key issues:

Firstly, why does acupuncture exert long-distance effects? Acupuncture to distal foot points results in somatic effects at great distances e.g., analgesia in the cervical region. Dr. Longhurst provides considerable research—much of which he has personally elucidated—on the visceral long-distance effects e.g., reduction in systemic blood pressure, but to suggest that this must relate to some form of system hard-wiring [1] fails to answer the key question: why do meridians, some of which are over a meter in length, exist at all?

Secondly, Dr. Longhurst describes in considerable detail the use of both manual and electrical needle acupuncture. Yet, a number of recent studies have shown that laser acupuncture delivers a similar therapeutic outcome to needle acupuncture [2,3], which Dr. Longhurst omits to mention. I, too, support the assertion that acupuncture exerts its clinical effects through modulation of the afferent nervous system, but the models reviewed by Dr. Longhurst cannot adequately explain how laser acupuncture, with its very low intensity energy transmission, can exert an effect on acupoints.

I believe the answer relates to the elucidation of the purpose of the system of meridians. In other words, what is the normal function of the neural system, including the meridians, that is exploited by acupuncture? While traditional Chinese medicine invokes the balance between *Yin* and *Yang*,

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I believe there is good evidence to suggest that the system exploited by acupuncture is a group of cutaneous nerves at the dermal-epidermal junction (susceptible to laser), which runs along meridians, designed to maintain an organism's arousal [4]. There is recent evidence that acupuncture exerts inhibitory effects [5], and I contend that its effects, both analgesic and visceral, relate to the inhibition of neural arousal.

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